

WHAT IS CLAIMED IS:

1. A method of performing image processing using image data generated by an image generator and image generation record information  
5 that is associated with the image data and that includes at least supplementary light source flash information at the time of generation of the image data, the method comprising the steps of:

judging whether to execute image quality adjustment processing on the basis of the supplementary light source flash information contained  
10 in the image generation record information; and

when it is judged to execute the image quality adjustment processing, executing the image quality adjustment processing to adjust the image data such that variation in brightness values is minimized in a highest value range within an entire possible range for brightness values  
15 represented by the image data.

2. A method according to claim 1 wherein the image quality adjustment step includes the steps of:

judging, on the basis of the supplementary light source flash information contained in the image generation record information, whether  
20 there was illumination by the supplemental light source at the time of generation of the image data is made, and

executing the image quality adjustment processing when a judgment (a) to the effect that "there was illumination by the supplemental  
25 light source at the time of generation of the image data" is realized.

3. A method according to claim 2 wherein the image generation record information further includes information relating to a distance between a subject and the image generator of the image data at the time of  
30 generation of the image data, and

the image quality adjustment step includes a step wherein

regardless of realization of the judgment (a), when a judgment (b) to the effect that "the distance from the subject is not within a first predetermined close range" is realized, execution of the image quality adjustment processing is halted, or a degree of brightness value adjustment  
5 in the image quality adjustment processing is reduced.

4. A method according to claim 3 wherein the image generation record information further includes information relating to quantity of light of the supplemental light source at the time of generation of the image data,  
10 and

the image quality adjustment step includes a step of adjusting the first predetermined close range at least on the basis of the quantity of light.

5. A method according to claim 3 wherein the image generation record information further includes information relating to aperture value of the image generator at the time of generation of the image data, and  
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the image quality adjustment step includes a step of adjusting the first predetermined close range at least on the basis of the aperture value.

20 6. A method according to claim 3 wherein the image generation record information further includes information relating to sensitivity of an optical circuit of the image generator at the time of generation of the image data, and

25 the image quality adjustment step includes a step of adjusting the first predetermined close range at least on the basis of the optical circuit sensitivity.

30 7. A method according to claim 2 wherein the image generation record information further includes information relating to quantity of light of the supplemental light source at the time of generation of the image data, and

the image quality adjustment step includes a step wherein regardless of realization of the judgment (a), when a judgment (c) to the effect that "the quantity of light is not within a second predetermined range" is realized, execution of the image quality adjustment processing is halted,  
5 or a degree of brightness value adjustment in the image quality adjustment processing is reduced.

8. A method according to claim 2 wherein the image quality adjustment step includes a step wherein regardless of realization of the  
10 judgment (a), when a judgment (d) to the effect that "size of an area of linked pixels having brightness above a first predetermined brightness value in the image data is larger than a predetermined threshold value" is realized, execution of the image quality adjustment processing is halted, or a degree of brightness value adjustment in the image quality adjustment  
15 processing is reduced.

9. A method according to claim 1 wherein the image generation record information further contains information relating to quantity of light of the supplemental light source at the time of generation of the image data,  
20 and

the image quality adjustment step includes a step of adjusting a degree of brightness value adjustment in the image quality adjustment processing at least on the basis of the quantity of light.

25 10. A method according to claim 1 wherein the image generation record information further contains information relating to a distance between a subject and the image generator at the time of generation of the image data, and

30 the image quality adjustment step includes a step of adjusting a degree of brightness value adjustment in the image quality adjustment processing at least on the basis of distance from the subject.

11. A method according to claim 1 wherein the image generation record information further includes information relating to aperture value of the image generator at the time of generation of the image  
5 data, and

the image quality adjustment step includes a step of adjusting a degree of brightness value adjustment in the image quality adjustment processing at least on the basis of the aperture value.

10 12. A method according to claim 1 wherein the image generation record information further includes information relating to sensitivity of an optical circuit of the image generator at the time of generation of the image data, and

15 the image quality adjustment step includes a step of adjusting a degree of brightness value adjustment in the image quality adjustment processing at least on the basis of the sensitivity.

20 13. A method according to claim 1 wherein a target area of processing targeted for the image quality adjustment processing includes a first type area of linked maximum brightness pixels having maximum possible brightness value.

25 14. A method according to claim 13 wherein a target area of processing targeted for the image quality adjustment processing further includes a second type area meeting a specific condition, situated in the vicinity of the first type area.

30 15. A method according to claim 14 wherein the specific condition includes at least a condition (e) to the effect that "the area is composed of pixels whose shortest distance from the first type area is equal to or less than a first predetermined distance".

16. A method according to claim 14 wherein the specific condition includes at least a condition (f) to the effect that "the area is an area composed of pixels whose brightness value is equal to or greater than a  
5 second predetermined brightness value, and is an area linked to the first area".

17. A method for performing image processing using image data generated by an image generator, the method comprising the steps of:  
10 judging whether a size of an area of linked pixels having brightness above a first predetermined brightness value in the image data is larger than a predetermined threshold value, and  
when the judgment is realized, executing image quality adjustment processing to adjust the image data such that variation in  
15 brightness values is minimized in a highest value range within an entire possible range for brightness values represented by the image data.

18. A method according to claim 17 wherein a target area of processing targeted for the image quality adjustment processing includes a  
20 first type area of linked maximum brightness pixels whose brightness value is maximum possible brightness value.

19. A method according to claim 18 wherein a target area of processing targeted for the image quality adjustment processing further  
25 includes a second type area meeting a specific condition, situated in the vicinity of the first type area.

20. A method according to claim 19 wherein the specific condition includes at least a condition (e) to the effect that "the area is composed of pixels whose shortest distance from the first area is equal to or less than a first predetermined distance".  
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21. A method according to claim 19 wherein the specific condition includes at least a condition (f) to the effect that "the area is an area composed of pixels whose brightness value is equal to or greater than a  
5 second predetermined brightness value, and is an area linked to the first type area".

22. An image processing device for performing image processing using image data generated by an image generator and image  
10 generation record information that is associated with the image data and that includes at least flash information for a supplementary light source at the time of generation of the image data, the image processing device comprises:

an image quality adjuster that, on the basis of flash information  
15 for the supplementary light source included in the image generation record information, makes a judgment as to whether to execute image quality adjustment processing; and when it is judged to execute the image quality adjustment processing, executes image quality adjustment processing to adjust the image data such that variation in brightness value is minimized  
20 in a highest value range within an entire possible range for brightness value represented by the image data.

23. An image processing device for performing image processing using image data generated by an image generator, the image  
25 processing device comprises:

an image quality adjuster that, when a judgment that a size of an area of linked pixels having brightness above a first predetermined brightness value in the image data is larger than a predetermined threshold value is realized, executes image quality adjustment processing to adjust  
30 the image data such that variation in brightness value is minimized in a

highest value range within an entire possible range for brightness value represented by the image data.

24. A computer program product for causing a computer to  
5 execute a image data process using image data generated by an image generator and image generation record information that is associated with the image data and that includes at least flash information for a supplementary light source at the time of generation of the image data, the computer program product comprising:

10 a computer-readable medium; and  
a computer program stored on the computer-readable medium,  
the computer program comprising:

15 a first program for causing a computer to judge, on the basis of flash information for the supplementary light source included in the image generation record information, whether to execute image quality adjustment processing; and

20 a second program for causing the computer to adjust the image data such that variation in brightness value is minimized in a highest value range within an entire possible range for brightness value represented by the image data, in the event that it is judged to execute image quality adjustment processing.

25. A computer program product for causing a computer to execute a image data process using image data generated by an image generator, the computer program product comprising:

a computer-readable medium; and  
a computer program stored on the computer-readable medium,  
the computer program comprising a program that, when a judgment that a size of an area of linked pixels having brightness above a first 30 predetermined brightness value in the image data is larger than a predetermined threshold value is realized, executes image quality

adjustment processing to adjust the image data such that variation in brightness value is minimized in a highest value range within an entire possible range for brightness value represented by the image data.